Allowance

1.   Claims 2, 13, 24, 35 and 39 are cancelled.

2.   Claims 45-56 are withdrawn.

3.   Claims 1, 3-12, 14-23, 25-34 and 36-44 are allowed.

Examiner's Amendment

4.   An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

5.   Authorization for this examiner's amendment was given in a telephone interview with Michael Haynes (Reg. #40,014) on 29 January 2009.

6.   The application has been amended as follows:

      In the Claims: Claims 1, 12, 23, 34 and 39 have been amended.

      Claim 1 (Currently Amended) A method for providing access to a telephone-wire-based communications medium, the communications medium being suitable for allowing use of a plurality of Home Phoneline Network (HPN) frames, the method comprising the steps of:

transmitting the plurality of ~~Home Phoneline Network~~ HPN frames on the communications medium, each pair of ~~Home Phoneline Network~~ HPN frames having timing to allow an Inter-Frame Gap (IFG) having a duration greater than zero microseconds, the IFG comprising a blocking signal adapted to prevent ~~an HPNA~~ a Home Phoneline Network Association (HPNA) v2 station (v2 STA) device from recognizing the IFG~~, the blocking signal not comprising frame content~~;

wherein each blocking frame comprised by the plurality of HPN frames is assigned a highest HPNA priority that is available in an HPNA v2 frame, each of a Media Control Station (MC STA) device and a non-Media Control Station (non-MC STA) device having different pre-assigned Contention Resolution Protocol slots that have access priority over the v2 STA;

at least one of the MC STA and the non-MC STA is adapted to always choose a Backoff Signal Slot 0 of an HPNA v2 frame during contention resolution with the v2 STA, the Backoff Signal Slot 0 is one of only three Backoff Signal Slots specified under HPNA v2 for use in contention resolution after a collision;

transmitting a message from a ~~Media Control Station (MC STA)~~ MC STA to at least one selected ~~non-Media Control Station (non-MC STA)~~ non-MC STA when the ~~Home Phoneline Network~~ HPN frames are transmitted; and

receiving a reply message to the transmitted message at the MC STA from a selected non-MC STA when the ~~Home Phoneline Network~~ HPN frames are transmitted.

Claim 12 (Currently Amended) A method for providing access to a <u>telephone-wire-based</u> communications medium, the communications medium being suitable for allowing use of a plurality of Home Phoneline Network (HPN) frames, each HPN frame being timed to allow a plurality of physical layer priority level slots, the method comprising the steps of:

transmitting the plurality of ~~Home Phoneline Network~~ <u>HPN</u> frames on the communications medium, each pair of ~~Home Phoneline Network~~ <u>HPN</u> frames having timing to allow an Inter-Frame Gap (IFG) having a duration greater than zero microseconds, the IFG comprising a blocking signal, the blocking signal adapted to prevent ~~an HPNA~~ <u>a Home Phoneline Network Association (HPNA)</u> v2 station (v2 STA) <u>device</u> from recognizing the IFG~~, the blocking signal not comprising frame content~~;

<u>wherein each blocking frame comprised by the plurality of HPN frames is assigned a highest HPNA priority that is available in an HPNA v2 frame, each of a Media Control Station (MC STA) device and a non-Media Control Station (non-MC STA) device having different pre-assigned Contention Resolution Protocol slots that have access priority over the v2 STA;</u>

<u>at least one of the MC STA and the non-MC STA is adapted to always choose a Backoff Signal Slot 0 of an HPNA v2 frame during contention resolution with the v2 STA, the Backoff Signal Slot 0 is one of only three Backoff Signal Slots specified under HPNA v2 for use in contention resolution after a collision;</u>

transmitting a message from a ~~Media Control Station (MC STA)~~ <u>MC STA</u> to at least one selected ~~non-Media Control Station (non-MC STA)~~ <u>non-MC STA</u> when the

~~Home Phoneline Network~~ HPN frames are transmitted, the transmitted message being transmitted with a highest physical layer priority level available in an HPNA v2 frame; and

receiving a reply message to the transmitted message at the MC STA from the selected non-MC STA when the ~~Home Phoneline Network~~ HPN frames are transmitted.

Claim 23 (Currently Amended) A communications network, comprising:

a telephone-wire-based communications medium that is suitable for allowing use of a plurality of Home Phoneline Network (HPN) frames; ~~and~~

~~a communications signal in~~ transmitting the plurality of HPN frames on the communications medium ~~having the plurality of Home Phoneline Network frames~~, each pair of ~~Home Phoneline Network~~ HPN frames having timing to allow an Inter-Frame Gap (IFG) having a duration greater than zero microseconds, the IFG comprising a blocking signal adapted to prevent ~~an HPNA~~ a Home Phoneline Network Association (HPNA) v2 station (v2 STA) device from recognizing an existence of the IFG~~, the blocking signal not comprising frame content; and~~

wherein each blocking frame comprised by the plurality of HPN frames is assigned a highest HPNA priority that is available in an HPNA v2 frame, each of a Media Control Station (MC STA) device and a non-Media Control Station (non-MC STA) device having different pre-assigned Contention Resolution Protocol slots that have access priority over the v2 STA;

at least one of the MC STA and the non-MC STA is adapted to always choose a Backoff Signal Slot 0 of an HPNA v2 frame during contention resolution with the v2 STA, the Backoff Signal Slot 0 is one of only three Backoff Signal Slots specified under HPNA v2 for use in contention resolution after a collision; and

a ~~Media Control Station (MC STA)~~ MC STA transmitting a message to at least one selected ~~non-Media Control Station (non-MC STA)~~ non-MC STA during the ~~Home Phoneline Network~~ HPN frames, and receiving a reply message in response to the transmitted message from the non-MC STA during the ~~Home Phoneline Network~~ HPN frames.

Claim 34 (Currently Amended) A communications network, comprising:

a telephone-wire-based communications medium that is suitable for allowing use of a plurality of Home Phoneline Network (HPN) frames, each ~~(HPN)~~ HPN frame being timed to allow a plurality of physical layer priority level slots[[;]] , and

~~a communications signal in~~ transmitting the plurality of HPN frames on the communications medium ~~having,~~ each pair of HPN frames having timing to allow an Inter-Frame Gap (IFG) having a duration greater than zero microseconds, the IFG comprising a blocking signal adapted to prevent ~~an HPNA~~ a Home Phoneline Network Association (HPNA) v2 station (v2 STA) device from recognizing the IFG, ~~the blocking signal not comprising frame content,~~ the blocking signal derived from a frame transmitted immediately prior to the IFG; ~~and~~

wherein each blocking frame comprised by the plurality of HPN frames is assigned a highest HPNA priority that is available in an HPNA v2 frame, each of a Media Control Station (MC STA) device and a non-Media Control Station (non-MC STA) device having different pre-assigned Contention Resolution Protocol slots that have access priority over the v2 STA[[;]] , and

at least one of the MC STA and the non-MC STA is adapted to always choose a Backoff Signal Slot 0 of an HPNA v2 frame during contention resolution with the v2 STA, the Backoff Signal Slot 0 is one of only three Backoff Signal Slots specified under HPNA v2 for use in contention resolution after a collision; and

a ~~Media Control Station (MC STA)~~ MC STA that is suitable for transmitting a message to at least one selected ~~non-Media Control Station (non-MC STA)~~ non-MC STA, the transmitted message being transmitted with a highest physical layer priority level available in each HPNA v2 frame and during the ~~Home Phoneline Network~~ HPN frames, the MC STA receiving a reply message in response to the transmitted message from the at least one selected non-MC STA during the ~~Home Phoneline Network~~ HPN frames.

Claim 39 (Cancelled)

In the Specification: pages 1, 10 and 11 have been amended.

Page 1, paragraph 01

This application claims priority to provisional U.S. Application Ser. No. 60/269,354,

entitled "Enhanced Channel Access Mechanisms For A QoS-Driven HPNA Network,"

invented by Wei Lin and Matthew Sherman, filed February 20, 2001, and provisional

U.S. Application Ser. No. 60/269,861, entitled HPNA 3.0 channel access mechanism for

compatibility with HPNA 2, invented by Matthew J. Sherman, filed February 21, 2001,

both of which are incorporated by reference herein. The present application is also related

to U.S. Patent Application Serial No. ~~(Atty Docket No. IDS 2000-0672B, 3493.00297)~~

~~10/042,165, now U.S. Patent No. 7,298,757~~, U.S. Patent Application Serial No. ~~(Atty~~

~~Docket No. IDS 2000-0672C, 3493.00298)~~ 10/042,179, now U.S. Patent No. 7,293,103,

and U.S. Patent Application Serial No. ~~(Atty Docket No. IDS 2000-0672E, 3493.00326)~~

~~10/042,166, now U.S. Patent No. 7,310,326, and U.S. Patent Application Serial No. (Atty~~

~~Docket No. IDS 2000-0672A, 3493.00337)~~, each entitled "Enhanced Channel Access

Mechanism For QoS-Driven HomePNA (HPNA 2.1), each filed on December 19, 2001,

and each incorporated by reference herein.

Page 10-11, paragraph 27

The medium access techniques of the present invention maybe used by an enhanced STA

separately or in combination for gaining preferential access to the HN communications

medium. Additionally, the preferential medium access techniques of the present invention

can be used in conjunction with the centralized medium access techniques disclosed by

U.S. Patent Application Serial No. 09/616,900, now U.S. Patent No. 6,862,270, entitled

"An Architectural Reference Model For QoS-Driven Wireless ~~Lans~~ LANs," invented by J.-M. Ho; to U.S. Patent Application Serial No. 09/616,901, <u>now U.S. Patent No. 6,804,222,</u> entitled "An In-Band QoS Signaling Reference Model for QoS-Driven Wireless LANs," invented by W. Lin and J.-M. Ho; to U.S. Patent Application Serial No. 09/617,083, <u>now U.S. Patent No. 7,151,762,</u> entitled "Virtual Streams for QoS-Driven Wireless LANs," invented by J.-M. Ho and W. Lin; to U.S. Patent Application Serial No. 09/616,897, <u>now U.S. Patent No. 6,970,422,</u> entitled "Admission Control for QoS-Driven Wireless LANs," invented by W. Lin and J.-M. Ho; to U.S. Patent Application Serial No. 09/616,896, entitled "Frame Classification for QoS-Driven Wireless LANs," invented by J.-M. Ho and W. Lin; to U.S. Patent Application Serial No. 09/617,493, <u>now U.S. Patent No. 6,850,981,</u> entitled "Frame Scheduling for QoS-Driven Wireless LANs," invented by J.-M. Ho and W. Lin; to U.S. Patent Application Serial No. 09/617,494, <u>now U.S. Patent No. 6,999,442,</u> entitled "RSVP/SBM Based Down-Stream Session Setup, Modification, and Teardown for QoS-Driven Wireless LANs," invented by J.-M. Ho and W. Lin; to U.S. Patent Application Serial No. 09/616,878, <u>now U.S. Patent No. 7,068,632,</u> entitled "RSVP/SBM Based Up-Stream Session Setup, Modification, and Teardown for QoS-Driven Wireless LANs," invented by J.-M. Ho and W. Lin; to U.S. Patent Application Serial No. 09/617,440, <u>now U.S. Patent No. 6,950,397,</u> entitled "RSVP/SBM Based Side-Stream Session Setup, Modification, and Teardown for QoS-Driven Wireless LANs," invented by J.-M. Ho and W. Lin; and to U.S. Patent Application Serial No. 09/616,885, <u>now U.S. Patent No. 7,068,633,</u> entitled "Enhanced Channel Access Mechanisms for QoS-Driven Wireless LANs," invented by J.-M. Ho; to U.S. Patent Application Serial

No. 09/617,439, now U.S. Patent No. 7,031,287, entitled "Centralized Contention and

Reservation Request for QoS-Driven Wireless LANs," invented by J.-M. Ho and W. Lin;

to U.S. Patent Application Serial No. 09/616,884, now U.S. Patent No. 7,039,032,

entitled "Multipoll for QoS-Driven Wireless LANs," invented by J.-M. Ho and W. Lin;

each filed July 14, 2000, and each of which is incorporated by reference herein.

Additionally, the present application is related to U.S. Patent Application Serial No.

09/597,392 09/596,712, now U.S. Patent No. 6,747,959, entitled "Voice-Data Integrated

Multiaccess By Self-Reservation and Blocked Binary Tree Resolution," invented by J.-

M. Ho and filed June 19, 2000; and U.S. Patent Application Serial No. 09/596,712

09/597,392, now U.S. Patent No. 6,963,545, entitled "Voice-Data Integrated Multiaccess

By Self-Reservation and Stabilized Aloha Contention," invented by J.-M. Ho, and filed

June 19, 2000, each of which is incorporated by reference herein.

Reasons for Allowance

7.   The following is an examiner's statement of reasons for allowance: Claims 1, 3-12, 14-

23, 25-34 and 36-44 are allowable over the prior art of record.

8.   The examiner has found that the prior art of record does not teach, suggest, or render

obvious the specific combination of a method or a communication network for providing

access to a communications medium, the communications medium being suitable for

allowing use of Home Phoneline Network (HPN) frames, comprising: wherein each blocking

frame comprised by the plurality of HPN frames is assigned a highest HPNA priority that is

available in an HPNA v2 frame, each of a Media Control Station (MC STA) device and a

non-Media Control Station (non-MC STA) device having different pre-assigned Contention

Resolution Protocol slots that have access priority over the v2 STA; and at least one of the

MC STA and the non-MC STA is adapted to always choose a Backoff Signal Slot 0 of an

HPNA v2 frame during contention resolution with the v2 STA, the Backoff Signal Slot 0 is

one of only three Backoff Signal Slots specified under HPNA v2 for use in contention

resolution after a collision (major difference in the claims not found in the prior art) as set

forth in the specification and recited in independent claims 1, 12, 23 and 34.

9.   For these reasons, in conjunction with the other limitations of the independent claims,

puts this case in condition for allowance.

10.   Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the

issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons

for Allowance OR Examiner's Amendment."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Baturay whose telephone number is (571) 272-3981. The examiner can normally be reached at M-Th 7am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Pwu can be reached on (571) 272-6798. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alicia Baturay
February 3, 2009

/Jeffrey Pwu/
Supervisory Patent Examiner, Art Unit 2446